

FILE 'REGISTRY' ENTERED AT 13:58:40 ON 24 NOV 2010

EXP 1-KESTOSE/CN

L1 1 S E3

EXP NYSTOSE/CN

L2 2 S E3-E4

EXP FRUCTOFURANOSYLNYSTOSE/CN

L3 1 S E1

FILE 'HCAPLUS' ENTERED AT 13:59:49 ON 24 NOV 2010

L4 137 S L1 AND L2 AND L3

L5 223462 S CAT OR DOG OR PET OR (COMPANION ANIMAL)

L6 3 S L4 AND L5

L7 1007012 S CALCIUM

L8 13 S L4 AND L7

L9 6 S L8 AND (PY<2004 OR AY<2004 OR PRY<2004)

FILE 'HOME' ENTERED AT 13:58:26 ON 24 NOV 2010

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.22

0.22

FILE 'REGISTRY' ENTERED AT 13:58:40 ON 24 NOV 2010

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 NOV 2010 HIGHEST RN 1254155-96-8

DICTIONARY FILE UPDATES: 23 NOV 2010 HIGHEST RN 1254155-96-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 26, 2010.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> exp 1-kestose/cn

E1 1 1-KESTOHEPTAPOSE/CN

E2 1 1-KESTOPENTAPOSE/CN

E3 1 --> 1-KESTOSE/CN

E4 1 1-KESTOSE-SUCROSE FRUCTOSYLTRANSFERASE/CN

E5 1 1-KESTOTRIOSE/CN

E6 1 1-KETO PREVITAMIN D3/CN

E7 1 1-KETO-A-CYPERONE/CN

E8 1 1-KETO-1,2-DIHYDROISOQUINOLINE PHENYLHYDRAZONE/CN

E9 1 1-KETO-2,3-EPOXYCHLORDENE/CN

E10 1 1-KETO-25-HYDROXYPREVITAMIN D3/CN

E11 1 1-KETO-3-(3'-SULFAMYL-4'-CHLOROPHENYL)-3-HYDROXYISOINDOLINE/  
CN

E12 1 1-KETO-3-METHYL-3-CARBOMETHOXYTETRAHYDROISOQUINOLINE/CN

=> s e3

L1 1 1-KESTOSE/CN

=> exp nystose/cn

E1 1 NYSTEX/CN

E2 1 NYSTOP/CN

E3 1 --> NYSTOSE/CN

E4 1 NYSTOSE TRIHYDRATE/CN

E5 1 NYSTRANOL/CN

E6 1 NYSYN 25-8/CN

E7 1 NYSYN 30-5/CN

E8 1 NYSYN 33-3/CN

E9 1 NYSYN 33-5/CN

E10 1 NYSYN 33-5HM/CN

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E11      1      NYSYN 35-5/CN
E12      1      NYSYN 35-8/CN

=> s e3-e4
      1 NYSTOSE/CN
      1 "NYSTOSE TRIHYDRATE"/CN
L2       2 (NYSTOSE/CN OR "NYSTOSE TRIHYDRATE"/CN)

=> exp fructofuranosylnystose/cn
E1       1      FRUCTOFURANOSYL NYSTOSE/CN
E2       1      FRUCTOFURANOSYLAMINE, N-BENZYL-1-DEOXY-1-P-TOLUIDINO-, D-/CN
E3       0 --> FRUCTOFURANOSYLNYSTOSE/CN
E4       1      FRUCTOHEPTONIC ACID, MONOSODIUM SALT/CN
E5       1      FRUCTOKINASE/CN
E6       1      FRUCTOKINASE (AEROMONAS HYDROPHILA HYDROPHILA STRAIN ATCC 79
      66)/CN
E7       2      FRUCTOKINASE (AGROBACTERIUM TUMEFACIENS STRAIN C58 GENE SCRK
      )/CN
E8       1      FRUCTOKINASE (ARABIDOPSIS THALIANA CLONE F23O10 GENE F23O10.
      21)/CN
E9       1      FRUCTOKINASE (ARABIDOPSIS THALIANA CLONE RAFL05-07-J12 (R099
      47) GENE AT1G66430)/CN
E10      1      FRUCTOKINASE (ARABIDOPSIS THALIANA CLONE RAFL06-86-G11 (R180
      33) GENE AT2G31390)/CN
E11      1      FRUCTOKINASE (ARABIDOPSIS THALIANA CLONE T27F4 GENE T27F4.17
      )/CN
E12      1      FRUCTOKINASE (ARABIDOPSIS THALIANA GENE AT2G31390)/CN

=> s e1
L3       1 "FRUCTOFURANOSYL NYSTOSE"/CN

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=> file hcaplus
COST IN U.S. DOLLARS          SINCE FILE          TOTAL
                               ENTRY          SESSION
FULL ESTIMATED COST          22.98          23.20

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FILE 'HCAPLUS' ENTERED AT 13:59:49 ON 24 NOV 2010  
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 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 24 Nov 2010 VOL 153 ISS 22  
 FILE LAST UPDATED: 23 Nov 2010 (20101123/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2010  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2010

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the fourth quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l1 and l2 and l3

558 L1

460 L2

199 L3

L4 137 L1 AND L2 AND L3

=> s cat or dog or pet or (companion animal)

60015 CAT

76317 DOG

94123 PET

12969 COMPANION

1727199 ANIMAL

200 COMPANION ANIMAL

(COMPANION(W)ANIMAL)

L5 223462 CAT OR DOG OR PET OR (COMPANION ANIMAL)

=> s l4 and l5

L6 3 L4 AND L5

=> d l6 1-3 ti abs bib

L6 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Compositions comprising fermentable fiber which are adapted for use by a companion animal and kits and methods of their use

AB The present disclosure is directed to compns., kits, and methods which are adapted for use (especially oral use) by companion animals, for enhancement of gastrointestinal health. In one embodiment, compns. are provided which comprise a fermentable fiber, wherein the composition is a liquid

AN 2005:474928 HCAPLUS <<LOGINID::20101124>>

DN 143:25818

TI Compositions comprising fermentable fiber which are adapted for use by a companion animal and kits and methods of their use

IN Norton, Sharon Ann; Goldy, Gary Gregory

PA The Iams Company, USA

SO U.S. Pat. Appl. Publ., 10 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|---|------|----------|-----------------|----------|
|    | -----   | ---- | -----    | -----           | -----    |
| PI | US 20050119222  | A1   | 20050602 | US 2003-725248  | 20031201 |
|    | AU 2004295003   | A1   | 20050616 | AU 2004-295003  | 20041201 |
|    | AU 2004295003   | B2   | 20081204 |                 |          |
|    | CA 2547330  | A1   | 20050616 | CA 2004-2547330 | 20041201 |
|    | WO 2005053425   | A1   | 20050616 | WO 2004-US40084 | 20041201 |
|    | W:  |      |          |                 |          |
|    | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, |      |          |                 |          |
|    | CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, |      |          |                 |          |
|    | GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, |      |          |                 |          |
|    | LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, |      |          |                 |          |
|    | NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, |      |          |                 |          |
|    | TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  |      |          |                 |          |
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|    | AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, |      |          |                 |          |
|    | EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, |      |          |                 |          |

RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG  
EP 1689247 A1 20060816 EP 2004-812571 20041201  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS  
BR 2004017166 A 20070306 BR 2004-17166 20041201  
JP 2007512024 T 20070517 JP 2006-541496 20041201  
PRAI US 2003-725248 A 20031201  
WO 2004-US40084 W 20041201

L6 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Companion animal compositions comprising short-chain  
oligofructose  
AB Pet feed compns. comprise about 0.01-0.2% short-chain  
oligofructose (by weight of the composition) comprising 1-kestose, nystose, and  
1F- $\beta$ -fructofuranosylnystose. The compns. are used to enhance the  
gastrointestinal health of the animal and may improve fecal odor.  
AN 2005:471849 HCAPLUS <<LOGINID::20101124>>  
DN 143:6762  
TI Companion animal compositions comprising short-chain  
oligofructose  
IN Vickers, Robert Jason; Boileau, Thomas William-Maxwell; Sunvold, Gregory  
Dean  
PA The Iams Company, USA  
SO U.S. Pat. Appl. Publ., 7 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | US 20050118299   | A1   | 20050602 | US 2003-725251  | 20031201 |
|      | AU 2004295004  | A1   | 20050616 | AU 2004-295004  | 20041201 |
|      | AU 2004295004  | B2   | 20081009 |                 |          |
|      | CA 2547332   | A1   | 20050616 | CA 2004-2547332 | 20041201 |
|      | WO 2005053427  | A1   | 20050616 | WO 2004-US40085 | 20041201 |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,<br>CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,<br>GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,<br>LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,<br>NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,<br>TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW<br>RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,<br>AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,<br>EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,<br>RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,<br>MR, NE, SN, TD, TG |      |          |                 |          |
|      | EP 1689248   | A1   | 20060816 | EP 2004-812572  | 20041201 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS   |      |          |                 |          |
|      | BR 2004017167  | A    | 20070306 | BR 2004-17167   | 20041201 |
|      | JP 2007512840  | T    | 20070524 | JP 2006-542681  | 20041201 |
| PRAI | US 2003-725251   | A    | 20031201 |                 |          |
|      | WO 2004-US40085  | W    | 20041201 |                 |          |

L6 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Methods and kits related to administration of a fructooligosaccharide  
AB A first embodiment disclosed herein is a method of enhancing total tract  
digestibility of one or more dietary components in a companion  
animal, the method comprising administering to the  
companion animal a companion animal

composition comprising fructooligosaccharide. Kits comprising the companion animal composition and information that use of the companion animal composition by a companion animal is useful for enhancing total tract digestibility of one or more dietary components in the companion animal, are also disclosed. In a related, but sep., embodiment, a method selected from enhancing calcium absorption, improving bone health, improving strength, improving phys. activity performance, and combinations thereof, the method comprising administering to a companion animal a companion animal composition comprising fructooligosaccharide, is disclosed. Kits comprising the companion animal composition and information that use of the companion animal composition by a companion animal is useful for a purpose selected from the group consisting of enhancing calcium absorption, improving bone health, improving strength, improving phys. activity performance, and combinations thereof, are also disclosed.

AN 2005:471837 HCAPLUS <<LOGINID::20101124>>  
 DN 143:13251  
 TI Methods and kits related to administration of a fructooligosaccharide  
 IN Sunvold, Gregory Dean; Boileau, Thomas William-Maxwell; Vickers, Robert Jason  
 PA The Iams Company, USA  
 SO U.S. Pat. Appl. Publ., 8 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 1

|      | PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|------|--|------|----------|-----------------|----------|
| PI   | US 20050118234   | A1   | 20050602 | US 2003-724839  | 20031201 |
|      | AU 2004295005  | A1   | 20050616 | AU 2004-295005  | 20041201 |
|      | CA 2547059   | A1   | 20050616 | CA 2004-2547059 | 20041201 |
|      | WO 2005053426  | A1   | 20050616 | WO 2004-US40086 | 20041201 |
|      | W:   |      |          |                 |          |
|      | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |          |
|      | RW:  |      |          |                 |          |
|      | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |      |          |                 |          |
|      | EP 1696734   | A1   | 20060906 | EP 2004-812573  | 20041201 |
|      | R:   |      |          |                 |          |
|      | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS   |      |          |                 |          |
|      | BR 2004017187  | A    | 20070306 | BR 2004-17187   | 20041201 |
|      | JP 2007512032  | T    | 20070517 | JP 2006-542682  | 20041201 |
|      | AU 2008229785  | A1   | 20081030 | AU 2008-229785  | 20081003 |
| PRAI | US 2003-724839   | A    | 20031201 |                 |          |
|      | AU 2004-295005   | A3   | 20041201 |                 |          |
|      | WO 2004-US40086  | W    | 20041201 |                 |          |

=> s calcium  
 L7 1007012 CALCIUM

=> s l4 adn l7  
 MISSING OPERATOR L4 ADN

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> s 14 and 17  
L8 13 L4 AND L7

=> s 18 and (PY<2004 or AY<2004 or PRY<2004)  
24051979 PY<2004  
4837593 AY<2004  
4311905 PRY<2004  
L9 6 L8 AND (PY<2004 OR AY<2004 OR PRY<2004)

=> d 19 1-6 ti abs bib

L9 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Matrix-forming composition containing pectin  
AB A liquid edible composition with a pH >6, a viscosity <600 mPa s at a shear rate of 100 s<sup>-1</sup> and 20°, and a viscosity ≥125% of the viscosity at pH <5 and 37° comprises ≥0.05 weight% pectin (degree of methoxylation 2-50) and/or alginate; ≥5 mg calcium per 100 mL; and ≥0.1 weight% indigestible oligosaccharide (degree of polymerization 2-60). Oral administration of the product may be used to treat or prevent obesity in mammals. Thus, a viscous dietetic food composition (100 mL, pH 7) may include 0.55 g low-methoxyl pectin, 154 mg calcium carbonate, 0.4 g tripotassium citrate, and 1 g Fibersol 2.  
AN 2008:1088763 HCAPLUS <<LOGINID::20101124>>  
DN 149:331171  
TI Matrix-forming composition containing pectin  
IN Navarro Y Koren, Peter Antonio; Van Laere, Katrien Maria Jozefa; De Lange, Maria Elisabeth Hermien; Minor, Marcel  
PA N.V. Nutricia, Neth.  
SO U.S., 12pp.  
CODEN: USXXAM  
DT Patent  
LA English  
FAN.CNT 5

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---|------|----------|-----------------|--------------|
|      | -----   | ---- | -----    | -----           | -----        |
| PI   | US 7422764  | B2   | 20080909 | US 2004-871107  | 20040621 <-- |
|      | US 20040258826  | A1   | 20041223 |                 |              |
|      | US 20030118712  | A1   | 20030626 | US 2001-22372   | 20011220 <-- |
|      | US 6884445  | B2   | 20050426 |                 |              |
|      | EP 1410722  | A1   | 20040421 | EP 2002-79289   | 20021016 <-- |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK   |      |          |                 |              |
|      | US 20030134027  | A1   | 20030717 | US 2002-279968  | 20021025 <-- |
|      | US 6989166  | B2   | 20060124 |                 |              |
|      | WO 2003053165   | A1   | 20030703 | WO 2002-NL856   | 20021220 <-- |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                 |              |
|      | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |              |
| PRAI | US 2001-22372   | A    | 20011220 | <--             |              |

EP 2002-77222           A       20020607 <--  
 EP 2002-79289           A       20021016 <--  
 US 2002-279968          A       20021025 <--  
 WO 2002-NL856          A2      20021220 <--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OSC.G    4        THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L9    ANSWER 2 OF 6   HCAPLUS   COPYRIGHT 2010 ACS on STN

TI    Methods and kits related to administration of a fructooligosaccharide

AB    A first embodiment disclosed herein is a method of enhancing total tract digestibility of one or more dietary components in a companion animal, the method comprising administering to the companion animal a companion animal composition comprising fructooligosaccharide. Kits comprising the companion animal composition and information that use of the companion animal composition by a

companion animal is useful for enhancing total tract digestibility of one or more dietary components in the companion animal, are also disclosed. In a related, but sep., embodiment, a method selected from enhancing calcium absorption, improving bone health, improving strength, improving phys. activity performance, and combinations thereof, the method comprising administering to a companion animal a companion animal composition comprising fructooligosaccharide, is disclosed. Kits comprising the companion animal composition and information that use of the companion animal composition by a companion animal is useful for a purpose selected from the group consisting of enhancing calcium absorption, improving bone health, improving strength, improving phys. activity performance, and combinations thereof, are also disclosed.

AN    2005:471837   HCAPLUS <<LOGINID::20101124>>  
 DN    143:13251

TI    Methods and kits related to administration of a fructooligosaccharide

IN    Suvold, Gregory Dean; Boileau, Thomas William-Maxwell; Vickers, Robert Jason

PA    The Iams Company, USA

SO    U.S. Pat. Appl. Publ., 8 pp.  
 CODEN: USXXCO

DT    Patent

LA    English

FAN.CNT 1

|    | PATENT NO.     | KIND | DATE     | APPLICATION NO.  | DATE         |
|----|----------------|------|----------|--|--------------|
| PI | US 20050118234 | A1   | 20050602 | US 2003-724839   | 20031201 <-- |
|    | AU 2004295005  | A1   | 20050616 | AU 2004-295005   | 20041201 <-- |
|    | CA 2547059     | A1   | 20050616 | CA 2004-2547059  | 20041201 <-- |
|    | WO 2005053426  | A1   | 20050616 | WO 2004-US40086  | 20041201 <-- |
|    | W:             |      |          | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |              |
|    | RW:            |      |          | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG   |              |
| EP | 1696734        | A1   | 20060906 | EP 2004-812573   | 20041201 <-- |
|    | R:             |      |          | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS   |              |
| BR | 2004017187     | A    | 20070306 | BR 2004-17187  | 20041201 <-- |
| JP | 2007512032     | T    | 20070517 | JP 2006-542682   | 20041201 <-- |
| AU | 2008229785     | A1   | 20081030 | AU 2008-229785   | 20081003 <-- |



PRAI US 2003-724839 A 20031201 <--  
AU 2004-295005 A3 20041201  
WO 2004-US40086 W 20041201

L9 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Banana puree fermentation by Lactobacillus acidophilus immobilized in  
Ca-alginate  
AB Lactobacillus acidophilus and banana puree as a substrate were combined in  
a direct fermentation applying the bacteria as Ca alginate-entrapped cells.  
Cell growth, course of reducing sugars and pH, and utilization of  
fructooligosaccharides were compared with free cell fermentation Fermentation  
with  
immobilized microorganisms was more efficient. The contents of L.  
acidophilus and fructooligosaccharides in the final product were higher  
than those of free cell fermented banana medium.

AN 2004:205343 HCAPLUS <<LOGINID::20101124>>  
DN 140:356098  
TI Banana puree fermentation by Lactobacillus acidophilus immobilized in  
Ca-alginate  
AU Tsen, Jen-Horng; Lin, Yeu-Pyng; King, V. An-Erl  
CS Department of Nutrition, China Medical University, Taichung, 404, Taiwan  
SO Journal of General and Applied Microbiology (2003), 49(6),  
357-361  
CODEN: JGAMA9; ISSN: 0022-1260  
PB Microbiology Research Foundation  
DT Journal  
LA English

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)  
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Production of high content fructooligosaccharides by complex cell system  
AB A complex biocatalyst reactor system with a microfiltration device was  
employed to produce high content fructooligosaccharides continuously in  
the present invention. Aspergillus japonicus mycelium producing  
 $\beta$ -fructofuranosidase and Gluconobacter oxydans cell producing glucose  
dehydrogenase were mixed with sucrose solution in an aerated stirred tank  
reactor to produce high content fructooligosaccharides. The pH value was  
controlled by calcium carbonate or calcium hydroxide.  
By continuous were discharged continuously from microfiltration device.  
More than 80% in dry weight basis of high content fructooligosaccharides were  
produced by the system.

AN 2004:186493 HCAPLUS <<LOGINID::20101124>>  
DN 140:252419  
TI Production of high content fructooligosaccharides by complex cell system  
IN Duan, Guo-Ren; Shiu, Die-Chi; Bi, Jia-Lin  
PA Natational Science Council, Taiwan  
SO Taiwan., 6 pp.  
CODEN: TWXXA5  
DT Patent  
LA Chinese

FAN.CNT 1

|      | PATENT NO.     | KIND | DATE     | APPLICATION NO. | DATE         |
|------|----------------|------|----------|-----------------|--------------|
| PI   | TW 517088      | B    | 20030111 | TW 1997-115844  | 19971027 <-- |
| PRAI | TW 1997-115844 |      | 19971027 |                 | <--          |

L9 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN  
TI Manufacture of functional polymeric gels useful for immobilized  
biocatalysts

AB Hydrated polymer gels are frozen in water for water separation, thawed for isolation of the gels, and dried to give functional polymeric gels. An aqueous solution containing Na alginate and fructosyltransferase from Aureobasidium pullulans was dropped into an aqueous solution containing CaCl<sub>2</sub> to give hydrated gel, which was frozen, thawed, and dried to give a functional gel. An aqueous solution containing sucrose was passed through a column containing the gel to give saccharides containing 50.8 weight% (as solids) fructooligosaccharides including 1-kestose, nystose, and 1-fructosylnystose.

AN 2002:682835 HCAPLUS <<LOGINID::20101124>>

DN 137:215880

TI Manufacture of functional polymeric gels useful for immobilized biocatalysts

IN Ueno, Hideo; Shinohara, Satoru; Fujii, Takeshi

PA Nippon Origo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

|      | PATENT NO.    | KIND | DATE     | APPLICATION NO. | DATE         |
|------|---------------|------|----------|-----------------|--------------|
|      | -----         | ---- | -----    | -----           | -----        |
| PI   | JP 2002253228 | A    | 20020910 | JP 2001-60976   | 20010305 <-- |
| PRAI | JP 2001-60976 |      | 20010305 | <--             |              |

L9 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2010 ACS on STN

TI Production of fructooligosaccharides in high yield using a mixed enzyme system of  $\beta$ -fructofuranosidase and glucose oxidase

AB A mixed enzyme system, with  $\beta$ -fructofuranosidase (obtained from Aspergillus japonicus) and com. glucose oxidase (Gluzyme, Novo Nordisk), produced fructooligosaccharides (FOS) in high yield from sucrose. The reaction was performed in an aerated stirred tank reactor controlled at pH 5.5 by a slurry of CaCO<sub>3</sub>. Glucose, an inhibitor of  $\beta$ -fructofuranosidase, produced in the reaction was converted by glucose oxidase to gluconic acid, which was then precipitated to calcium gluconate in solution. The system produced more than 90% (weight/weight) FOS on a

dry weight basis, the remainder was glucose, sucrose and a small amount of calcium gluconate. Most of the FOS and sucrose was hydrolyzed to fructose in the mixed enzyme system with glucose oxidase and  $\beta$ -fructofuranosidase from Asp. niger.

AN 2001:761541 HCAPLUS <<LOGINID::20101124>>

DN 136:36423

TI Production of fructooligosaccharides in high yield using a mixed enzyme system of  $\beta$ -fructofuranosidase and glucose oxidase

AU Sheu, Dey Chyi; Lio, Po Jang; Chen, Shih Tse; Lin, Chi Tsai; Duan, Kow Jen

CS Department of Bioengineering, Tatung University, Taipei, Taiwan

SO Biotechnology Letters (2001), 23(18), 1499-1503

CODEN: BILED3; ISSN: 0141-5492

PB Kluwer Academic Publishers

DT Journal

LA English

OS CASREACT 136:36423

OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT